

THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

Vol. III.]

TUESDAY, DECEMBER 14, 1830.

[No. 44.]

I.

THE FUNCTION OF THE SPLEEN.

A PAMPHLET recently published in England by W. Dobson, contains some interesting experimental investigations on the subject of the Uses of the Spleen. We have not yet succeeded in procuring the work, but hasten to lay before our readers the following notice of it derived from a respectable British contemporary.

The poor spleen is an organ which has had more falsehoods told regarding it than almost any other. We know the use of the stomach, of the liver, of the kidneys, of the lungs, and, to a certain extent, of the brain; but the spleen has been travelling *incognito*, as regards its functions, in men's insides for many centuries. The duties of this mass of apparently spongy vascular substance, have been variously stated. Paley gave it the office of a packing, to fill out and to prevent from shaking the contents of the abdomen. Let us hear what our author says upon this point.

"Dr. Haighton, finding the spleen diminished in size during a meal, considered that the distended stomach presses on the spleen, thereby determining a greater quantity of blood to the stomach, liver, and pancreas, during the digestive process.

"Sir E. Home's researches led

him to conclude that the spleen consists of a congeries of blood-vessels and absorbents, without any connecting cellular membrane. From this mechanism, Sir. E. considers the *interstices of the vessels* to be a reservoir for the superabundant serum, lymph globules, soluble mucus, and coloring matter, carried into the circulation immediately after the process of digestion is completed.

"Sir Astley Cooper inferred from his own investigations, that the spleen is an elastic reservoir and manufactory of venous blood.

"Mr. Hewson thought that the red globules of the blood were elaborated in this organ.

"To Sir Anthony Carlisle's opinion I may briefly advert. 'I regard,' says this writer, 'the compensating heat of the spleen to be the natural provision against the *torporizing* influence of low temperature suddenly applied to the nervous and muscular structures of the stomach.'

"Mr. C. Bell regards the spleen as a provision for giving the vessels of the stomach an occasional power and greater activity; enabling them to pour out a quantity of fluid according to the necessity of digestion. And, in addition, he considers the venous blood of the spleen is useful in aiding the function of the liver." Pp. 7, 8.

Mr. Dobson found that all these views were unsatisfactory, and, in

the course of his experiments on physiology, observed, that the spleen of a dog, *killed a few hours after taking food*, was of a very large size, when compared to the spleen of a dog that had fasted for several hours. With the view of coming to some conclusion regarding the connexion between the digestive process and the spleen, and to ascertain the changes produced on this organ by the digestive process, and the times when these changes occur, Mr. Dobson instituted the following experiments:—

“**Exp. I.**—I gave to a middle-sized dog a hearty meal of beef and mutton; the animal ate heartily. *In four hours after*, I opened the abdomen, and exposed the spleen immediately: it was *large and firm*; its veins appeared completely gorged with blood; on cutting into the organ, a large quantity of dark-colored blood flowed out: the exact amount could not be estimated; but I should suppose there were about four ounces: it concreted in a *very short time*. The coagulated mass, however, was *soft*, easily broken down, and presented more the appearance termed *grumous blood*, than the proper sanguineous fluid.

“**Exp. II.**—A dog was procured as near in size as the one in the last experiment as could be met with; the animal took a full meal of beef and mutton: in five hours *after*, the abdomen was opened; the spleen was very *large and turgid*, with blood. The appearance of the blood was very similar to that in the last experiment; the quantity, however, was *much greater*.

“**Exp. III.**—The spleen of a dog (of an equal size to the preceding) was examined twelve hours after any food had been taken; a

very remarkable difference was observable; it was *very small*, and *flabby*, and contained only a *very small quantity of blood*. The appearance of the blood differed little from that in the preceding experiments; I thought it not quite so dark.” Pp. 11, 12.

To obviate the objection that might be raised, namely, that the spleens of these animals might be of different sizes, and that this occasioned the differences noticed, Mr. Dobson procured two of equal size, and examined their spleens at the same period after a meal; the difference in size was so trifling, as not to invalidate in the least the conclusions he drew from the preceding statements.

Mr. Dobson then tried to ascertain what might be the effect of the removal of the spleen from the system, and performed the following experiments:—

“**Exp. I.**—The spleen of a dog was removed;—the animal apparently suffered little from the operation. On the following day I gave it a quantity of food; it ate voraciously: for three hours after, no perceptible alteration was produced; but in *four hours after*, indications of uneasiness were shown: the animal became restless, and lastly sunk into a nearly torpid state; it was often moaning,—the pupils were dilated,—the heart laboring; there was frequent mic-turition; the respiration was exceedingly laborious, and, in short, there was every mark of plethora, or over-fulness of the vascular system. In the course of two hours from this period, the animal began to recover; and in about three hours these symptoms had subsided; considerable languor remained. The animal took a large meal twice or thrice in twenty-four

hours, and after each, precisely similar effects were presented. The animal became more feeble daily,—in a month after the operation, it died.

“EXP. II.—I next removed the spleen from another dog; but instead of giving full meals, as in the last experiment, I gave a small quantity of food every hour, or every two hours. The animal ate voraciously; no unpleasant symptoms occurred. This plan was pursued for three weeks, when the animal to all appearance was quite well; in fact, it became fat; the ligature from the splenic artery had come away, and the wound in the abdomen healed. I then commenced giving full meals twice in twenty-four hours; the same train of symptoms followed each meal, and at the same period, as in the last experiment, though perhaps not so urgent: the animal died in a month from the commencement of this plan of feeding.

“In both dogs I observed that the intestinal evacuations were of a *lighter* color than natural. On examining the body of each after death, a small quantity of limpid serum was contained in the bag of the tunica arachnoides, and more than a natural quantity in the lateral ventricles; the veins of the brain were in a highly congested state; the abdominal viscera presented no unnatural appearances, but the portal system of veins was much gorged with blood. The deductions to be derived from these experiments, and from the former ones, seem sufficiently obvious; but previous to making them, it may be requisite to refer, in a succinct manner, to a few circumstances connected with the digestive and circulatory systems,

so far as they may bear on this question.” Pp. 13, 15.

After stating some interesting views on the digestive and circulating systems, so far as connected with the subject, Mr. Dobson gives an account of the structure of the spleen,—which account is excellent, and shows that Mr. D. has studied nature as well as books:—

“The spleen is partially and loosely covered by the peritoneum; besides this, it has another covering—its proper envelope—the texture of which is laminated, and possesses a *high degree of elasticity*, so much so, as to allow the organ to be inflated by a slight force with air, and on removing the air it resumes its former magnitude. I have observed the *tunic of this viscus to contract and become corrugated, when the splenic vein or the vena porta was opened*. The splenic artery is a large division of the cœliac; after its origin, it passes over the left crus of the diaphragm,—gives off two or three branches (the ‘*vasa brevia*’) to the cardiac end of the stomach, and often divides before it permeates the spleen. After its entrance, it subdivides and ramifies throughout the substance of the organ, and as far as I have been able to ascertain, from the extreme branches of the arteries the veins commence *directly, and not by the medium of cells*, as generally supposed. The appearance of cells, which is produced when the spleen has been inflated and dried, is, in my opinion, nothing more *than the veins*; the calibre having been maintained by the air thrown in. The relative capacity of the veins to the arteries is much greater than in other parts of the body; and their elasticity much greater than other

veins, as exemplified by inflation." Pp. 20, 21.

Mr. Dobson disputes the opinion of Sir Everard Home, who maintains that there is no cellular substance in the spleen. Mr. D. maintains that cellular substance does exist, but the quantity is not great, and is of much looser texture than the cellular substance in other parts of the body.

Having shown that the structure of the spleen admits of great distension of the organ, Mr. Dobson draws his deductions as to its function :—

"That the spleen acts as a reservoir for containing the additional quantity of blood, which the vascular system has received, by means of the nutritive process." P. 22.

This deduction is developed more fully in the following :—

"That the circulatory vessels are capable of containing only a certain quantity of blood with impunity ; and that when an increase in the volume is produced, as after digestion, the spleen performs the office of reservoir to preserve the surplus." P. 24.

Mr. Dobson then notices, as illustrations of his views, some diseased phenomena, such as ague-cake, &c., and deduces some practical conclusions.

II.

A CASE OF RUPTURE OF THE BLADDER TERMINATING FATALLY ON THE FOURTH DAY.

By JOHN E. BUSH, M.D., of Cincinnati.

From the Western Journ. of Med.

I WAS sent for, on the 21st of June, to visit Mr. H., who was represented to have injured himself very seriously by a fall a

short time before. As I was absent when the messenger arrived, my pupil, Mr. Andrews, called to see the patient. He found him lying on his face upon the floor, in very great pain, and absolutely refusing to be moved ; and was informed that he was intemperate in his habits, and that he had returned home, on the evening before, somewhat intoxicated. On getting up in the morning, about ten o'clock, he had fallen across the bed post, and complained immediately of most excruciating pain about the abdomen. As he positively refused to submit to any remedial measures, Mr. A. left him ; and having been again sent for, I saw him on the next morning. I found him suffering great pain throughout the whole abdominal region ; his pulse quick, frequent, tense, and rather strong ; the abdomen swelled and tense ; a constant inclination to void his urine, without the power of doing it ; with a sensation which he expressed by saying " he felt as if the bladder would burst." His bowels had not been moved since he received the injury.

By introducing the catheter, about half a pint of urine was drawn off ; the loss of thirty ounces of blood produced a disposition to syncope and a complete reduction of the pulse. Twenty grains of calomel were given, to be followed by castor oil and spirits of turpentine, each half an ounce every hour, until evacuations were produced. Fomentations to the abdomen.

Evening.—No relief from the pain ; no alvine evacuations ; pulse increased in frequency, but soft and weak ; skin of the natural temperature. A small quantity

of urine was discharged by the catheter. Bleeding was attempted, but the pulse gave way under the loss of six ounces. Fomentations continued during the night.

23d.—Tension and soreness of the abdomen increased. Spasms of the abdominal muscles, with excruciating pain, shooting from the scrobiculus cordis to the loins, produced by the slightest motion. Tongue slightly furred. Catheter again introduced. A blister applied to the abdomen, and infusion of senna, with epsom salts, directed during the day; their operation to be assisted by enemata.

Evening.—Slight alvine evacuations, healthy in their appearance; reported to have had a free voluntary discharge of urine. No alleviation of the symptoms; pulse 150, not contracted, but without tension or strength.

Hitherto we had been led to suspect a visceral lesion, and our suspicions were early directed to the bladder; but the voluntary discharge of urine now led us to think differently. At the recommendation of Dr. Finley, who met me in consultation, he was again bled. The loss of eight ounces reduced the pulse and relaxed the system very much. The pain was somewhat alleviated; and after a large dose of denarcotised laudanum, he passed the night in comparative comfort. In addition to the laudanum were given twenty grains of calomel.

24th.—Pain somewhat relieved, when perfectly at rest. Calomel and opium directed to be taken during the day, and the bowels evacuated by enemata.

Evening.—Much worse; pulse nearly imperceptible; extremities cold; no pain, except on pressure;

slightly delirious. During the night these unfavorable symptoms increased, and he died about five o'clock on the next morning. To the last he retained a considerable degree of muscular strength, and within five minutes of his death, he arose from his bed, walked across the room, and poured out a tumbler of water.

Appearances on Dissection.—On opening the abdomen, a large quantity of transparent fluid presented itself—perhaps a gallon and a half—very offensive, and supposed by some present to have a urinous smell: the bladder was ruptured at the fundus, and closely contracted on the pubes; the intestines covered with coagulable lymph, agglutinated to each other, and their peritoneal coat in a state of high inflammation; the mucous surface not altered from the usual appearance; the omentum dark colored, but not gangrenous.

The reader will no doubt be struck with the fact, that the constitutional symptoms in this case were rather those of irritation than inflammation. Although the local symptoms urgently called for depletion, the pulse and the state of the surface neither manifested the usual symptoms of inflammatory action, nor of that depression of the vital powers which accompanies violent visceral inflammation,—bearing, in this respect, a close analogy to the cases of rupture of the duodenum and of the pylorus, reported by Dr. Drake in former numbers of this Journal.

The facility with which the bladder was ruptured is also worthy of notice, and can be accounted for only by the supposition of great distension, and of that pas-

sive state of its contracting fibres which follows as the consequence of a fit of intoxication.

III.

NITRATE OF SILVER IN PHLEGMONOUS ERYSIPELAS.

THE case which follows occurred in the practice of John Hodgson, Esq., Member of the Royal College of Surgeons in London, and Junior Surgeon to the Carlisle Dispensary, and was first published by him in the *Edinburgh Review*. It illustrates the efficacy, in a painful disease, of a remedy to the value of which the profession is too insensible.

Mrs. J., aged 40, of a pale unhealthy aspect, was seized, on Wednesday, the 11th of February, with acute pain of the inner part of the elbow, attended with a diffused redness and swelling, extending downwards along the ulnar aspect of the forearm. On Thursday, when I saw her, these symptoms were more urgent and distressing. She had passed a sleepless night, complaining of shiverings, restlessness, and general febrile disorder. She was ordered purgative medicines, with leeches and repeated warm fomentations to the inflamed part. The disease, however, continued to increase rapidly, both in severity and extent, until Friday morning, when she was visited by myself and Mr. Anderson. We found the limb greatly swollen, tense, and unyielding, of a bright red color, and exceedingly hot. The swelling extended along the inner surface of the arm, from about two inches above to three or four below the elbow-joint, occupying at the same time at

least two-thirds of the circumference of the limb. The absorbent vessels on the inner part of the arm, which, previous to this attack, had been slightly inflamed from the irritation of a scratch, were now also a little hard, and enlarged, but not particularly painful.

It was clear that nothing but free incisions through the substance of the inflamed part, as recommended by Mr. Copland Hutchinson and Mr. Lawrence, could now be of any avail in arresting the progress of the inflammation, and preventing subsequent suppuration and sloughing, unless we chose to adopt Mr. Higginbottom's new practice for the cure of external inflammations,—the application of the nitrate of silver. Having witnessed the efficacy of this latter remedy in several cases of inflamed absorbents, treated by Mr. Earle at Bartholomew's Hospital, in London, I resolved, with the concurrence of Mr. Anderson, to give it a fair trial in this instance. I accordingly applied it freely over the whole inflamed surface. In the evening, when I again visited her, about eight hours after the application, she was considerably relieved, the tense swelling of the part was a little diminished, and, in fact, the state of matters was so much altered, that when the arm was elevated and at rest, little or no pain was experienced. On Saturday, the parts cauterized continued to improve, but the inflammation had extended beyond the part primarily affected, rendering a second application of the remedy necessary. On Sunday, she was much better, but not altogether free from pain. The parts first touched with the caus-

tic had vesicated, and in some places had burst, discharging a watery fluid. On Monday, she was quite well, and could bear pressure on any part of the arm without experiencing uneasiness. She had passed a comfortable night, and was free from all febrile disturbance. The blackened cuticle had begun to separate, and on the Saturday following had all peeled off, the arm having been affected only with occasional itching during the desquamating process.

I am induced to publish this case, first, because I think the treatment pursued, which has been lately recommended by Mr. Higginbottom, is one of very great practical utility; and, secondly, because I believe it has not, in this part of the country at least, sufficiently attracted the attention of the profession. I have used the remedy in other cases of external inflammation—in phlegmon, for instance—and invariably with the same satisfactory result. It has always appeared to me, when applied sufficiently early to prevent the formation of matter, or when not resorted to until suppuration had already commenced, to lessen materially the size of the abscess, and enable it to heal more kindly than one would otherwise have been led to suspect. I have used it also in a case of numerous minute ulcerations of the leg, which were evidently extending by the process of ulcerative absorption. It formed an adherent eschar over the ulcerated surface, under which the ulcerative action was arrested, and the restorative process established and speedily completed.

As in the case related, I have

generally observed the inflammation to extend beyond the part primarily affected, after the nitrate of silver had been applied,—a circumstance which, I think, might be prevented by following the direction of Mr. Higginbottom, to apply the caustic over some distance beyond the part actually inflamed.

Should this remedy be found, by further experience, to possess the same power over inflammation of the veins,—a rare but extremely dangerous affection,—which I have seen it, in several instances, exert over that of the absorbent vessels, it must be regarded as one of the most valuable improvements in modern surgery.

From these and other facts already recorded, no reasonable doubt can be entertained of the nitrate of silver possessing a controlling power over external inflammation. I may also add, we have reason to believe, that, if this new remedy be applied to a part about to take on inflammatory action, the establishment of that process will be effectually prevented.

The terrible effects of punctured wounds, which are often followed by inflammation and all its injurious consequences, have by this means been prevented or moderated. It has long been an application of acknowledged power in punctured wounds received in dissection, and in other circumstances, which are frequently followed by consequences so direful, as to induce an almost general belief in the operation of some poisonous agency. In such cases, it has been supposed to act by destroying or decomposing the poison introduced into the wound;

but I believe its action may now be more rationally accounted for, by its specific influence in preventing and controlling inflammatory action. It has also been long known as a useful remedy in chronic inflammation of the eye, ulcers of the cornea, and those morbid productions of the conjunctival lining of the eyelids, termed granulations. Here, likewise, I conceive it would be much nearer the truth to ascribe its "*modus operandi*" to the same specific influence, than to its stimulating property producing an increased contractility of the capillary vessels, and thus restoring them to their natural actions in the first and second cases, or to any chemical agency on the diseased productions, the result of inflammatory action in the third. Because, from the latter view of the subject, we would be led to expect, not unfrequently, the supervention of acute inflammation, instead of the restoration of natural action,—an occurrence which I believe has seldom or never been observed to follow the application of the nitrate of silver. I call it a specific influence, because I know not how to explain its action. The fact of its power, however, is on this account no less certain; and that it extends to a considerable depth beneath the superficies on which it is applied, is abundantly evident. The power of mercury in arresting the progress of syphilis was never doubted, although its "*modus operandi*" was long unknown, and is still involved in conjecture. The influence of the same remedy over affections of the liver, with a total ignorance of its mode of action, was nevertheless believed as firmly, and acted upon as con-

fidently, as if it had admitted of all the certainty of mathematical demonstration. Why, then, should we hesitate to allow the nitrate of silver that rank in therapeutics, for which abundance of evidence has established for it as just a claim?

IV.

WHETHER ANIMAL DECOMPOSITION IS
PRODUCTIVE OF FEVER?

*To the Editor of the Boston Med.
and Surg. Journal.*

SIR,—Dr. Parsons has not fully considered the kind of answer which I intended to make to his Essay, nor has he rightly quoted my opinions. I do not mean that he has intentionally misrepresented me, for I am sure that he has not.

I will remark first, that I did not say that vegetables under decomposition produce fever. I said that *he* believed so; and I know that many others do. I am not ready to dispute the justice of that opinion, and I purposely avoided expressing my own sentiments. One point is enough at a time; and besides, I am in doubt on that subject.

Second, in proof of the influence of animal matter under decomposition, Dr. P. quoted statements from various sources; among them was one from Dr. Rand. Now I have always found a difficulty in examining such detached statements, where I did not know all the facts bearing on the case. It is like examining a single witness in court. You want to be able to call in the neighbors of the parties in the suit, or all who have any knowledge of the subject of litigation,

and by comparing their testimony the truth may be fully elicited; and this without supposing the single witness to give false testimony. With these views, I did not inquire respecting all the statements brought forward by Dr. P. Dr. Rand's was the only one respecting which I could readily inquire, and I supposed that Dr. P. relied on this quite as much as on any other. Now if it can be shown that the force of this statement can be destroyed, it might be suspected that the others would not bear a strict scrutiny. Let us inquire once more how this matter stands, and see if Dr. Parsons and I can agree on the matter. It will lead to the development of some general principles; and as I agree with Dr. P. in seeking truth only, I shall be pleased to have him examine those principles, and tell us if they appear to him false.

In 1798, the yellow fever appeared about Forthill in this town, and extended in different directions; on one side as far as our market, if I remember right. At this time some persons, exposed to putrid meat and fish, were affected with the fever. So were many more persons, not exposed to the putrid meat. Probably some of those other persons were exposed to vicissitudes of temperature, some to fatigue and watching, &c. These last would be regarded as exciting causes of the disease. I regard the putrid meat as the same. The persons so exposed must have been already disposed to the fever, or these causes would not have produced it. The question is, what was the predisposing cause which had acted upon them? I do not know what it was, nor have I any

conjecture to offer on that subject. But I think I know where it came from. I think it came from the soil in the district of the town where the disease prevailed, that is, about Forthill. In confirmation of this opinion, I state that fever of the same general character has since arisen in this town three times, and each time it has been in the same quarter, with only this difference, that it has been more closely confined to the neighborhood of Forthill.

Do I say that it is vegetable matter in the soil of this district which gives rise to the cause of fever? I certainly do not. In the case of marsh miasmata, I do not consider it proved that vegetable matter gives origin to the poison. It is rather probable, however, in my mind, that it does. But it may be that it is the mixture of animal and vegetable matter. Till, however, we can learn something more respecting marsh miasmata than that they generate fever; till we can learn their physical and chemical characters; I hold it idle to be very positive respecting their precise source. The miasmata which cause continued fever are, if possible, less known to us than marsh miasmata which cause intermittent fever. That is, we do not know the character of the soil from which the former are generated. It would seem that they may be generated from many different soils. A summer or autumnal temperature seems necessary to evolve the miasmata, in most cases; and the higher that temperature, the more severe and mortal is the fever, *cæteris paribus*. Probably there are other conditions requisite for the development and action of the cause of fever, which

we do not at present even suspect.

Now I hold that the evil of attributing a severe and mortal epidemic to a wrong cause is, that it prevents us from attending to the true one. If yellow fever breaks out in any district, the true course is to move away from that district, and not stay there to hunt for rotten fish or spoiled beef. An exposure to such substances, in such a district, would probably increase the chance of our undergoing the disease. But while I admit this, I would not infer, as some have done, that cemeteries in the midst of a city will produce fever in that city. That would be to make the conclusion broader than the premises.

I trust it will not be concluded, from the foregoing, that I think putrid fish, &c., are not a nuisance in a city or village. They may have some agency in producing fever in those who are exposed to them; and if they do not produce fever, they may produce other diseases.

As to the slaughter houses, I think that Dr. P. throws them aside with too little ceremony. He speaks of the conditions necessary to the evolution of morbid principles from them. Surely, in some of our summers, they are exposed to heat enough. As to the want of rest in the offal, I cannot think it deserves so much weight as he gives to it. The effluvia show that the decomposition is not prevented.

I will only add that I did not state, as my opinion, that the occupation of a butcher is peculiarly salubrious, but that it had been thought so. This opinion would

not be entertained, if it was remarkably otherwise.

Yours, &c. J. J.

Boston, Dec. 8, 1830.

V.

RED COLOR OF THE BLOOD.

To the Editor of the Boston Med. and Surg. Journal.

Washington City, Nov. 25, 1830.

DEAR SIR,—The cause of the red color of the blood has long been a subject of keen discussion among physiologists, and nothing has hitherto appeared upon the subject at all satisfactory, and against which powerful objections could not be brought.

Dr. Stevens, an eminent physician of St. Thomas, has instituted an experimental inquiry into this subject, which has led to some novel and interesting results. From his experiments it appears:—

1st. That the blood owes its red color entirely to the presence of the saline matter, which is invariably found to exist in it, while in a healthy state.

2d. That the dark color of venous blood arises from the presence of carbonic acid, which, like every other acid, turns the blood black.

3d. That the oxygen of the atmosphere can only affect the color of the blood, inasmuch as it possesses a powerful affinity for carbonic acid, which it takes from the blood by attracting it through the delicate membrane that lines the bronchial vessels, and aircells of the lungs.

4th. That the removal of the carbonic acid from the blood by the action of oxygen, does not

produce a change in its color unless there be saline matter actually present, to impart to it the arterial tint the moment the carbonic acid is removed.

5th. That acids, alkalies, electricity, and everything which destroys the neutrality of saline matter, gives to the blood a dark color.

Whatever practical inferences or change in the treatment of diseases these experiments may lead us to, the idea that the red color of the blood is owing to the saline matter which it contains is entirely new, and no one can deny to Dr. Stevens the merit of hav-

ing been the first discoverer of this interesting fact. He is still prosecuting his inquiries, and his researches upon this and other subjects connected with it promise much to the profession. They will soon be laid before the public in detail. I have had the pleasure of witnessing a number of Dr. Stevens' experiments,—as performed by his own hand,—upon the blood; and so far as I have had an opportunity to examine them, they have been performed with great care and accuracy, and were entirely satisfactory.—Very truly and respectfully,
Yours, THO. SEWALL.

BOSTON, TUESDAY, DECEMBER 14, 1830.

MARSHALL HALL ON THE MORBID EFFECTS OF BLOODLETTING.

WE should deem ourselves deficient in duty to the profession, were we to neglect noticing the republication, at Philadelphia, of Marshall Hall's celebrated researches on the effects of bloodletting.—The practice of bloodletting has, in times past certainly, been adopted to an extent and with an indiscriminateness altogether shocking to those who regarded it with a judicious and unprejudiced mind. Scarcely a disease, but the first of all remedies was venesection—full and thorough venesection; so that whatever doubt might rest on the subsequent course of treatment, this *introduction* was considered right of course, and practised almost without a thought or imagination that it could do harm. For ourselves, we have ever looked upon this mania for bloodletting as

altogether unaccountable, and an evil which must in time be generally perceived and avoided. We have been more than once under the painful necessity of declining to adopt this mode of treatment, when it has been recommended in consultation, and felt a conscience much clearer with a rusty, than with a worn-out lancet in our case. It is therefore with the most heartfelt pleasure we find a man so justly distinguished for an enlarged, observing and discriminating mind, coming forward with so much ability and truth, and pointing out with distinctness, and illustrating by ample experience, "the remarkable difference in the degree of tolerance and intolerance of loss of blood in different diseases, the equal danger of an inefficient and undue use of the lancet, and the rule which may be adopted to obviate this danger."

The author also gives us clear and

strong illustrations of the distinction to be made between diseases of *inflammation* and those of *irritation*, and dwells upon the great importance of keeping this distinction in mind, in the daily practice of physic.—He adduces, in addition to his own experience, in confirmation of these views, that of Dr. Abercrombie, Dr. Kellie, and Dr. Copeland, Mr. Trauers, Mr. Brodie and Mr. Cooke—names well and honorably known to the profession, and whose opportunities for observation are great as their ability.

Of this work of Mr. Hall we shall attempt no analysis, as we can scarcely find the sentence which can well be spared. It is divided into two parts—the first on the immediate morbid effects of the loss of blood—such as syncope, convulsions, delirium, coma, and sudden dissolution, and its more remote bad and fatal consequences;—the second on its curative effects; to which last are added some observations on the use of purgatives, opium, brandy, &c. Besides the very clear, thorough, and practical illustration of these subjects, there are appended to the volume several chapters on others connected with them.

The rule above referred to is this:—Where it is judged necessary to bleed, place the patient in an erect posture, and then allow the blood to flow ad deliquium. If the disease be of an active inflammatory character, then a large quantity will be evacuated before deliquium occurs;—if, on the other hand, it be a disease of irritation, then very little blood will escape. Dr. Hall does not

intend, by offering this rule, to convey the idea that *in all cases* it will be safe to bleed, provided the patient be in an erect position; but merely that in those cases where we judge, from the apparent symptoms, that venesection is proper, the adoption of this rule will test the correctness of our opinion—if right, teach us how far an effectual mode of relief may and should be carried; and if erroneous, prevent a very serious and perhaps fatal course of treatment. So, in the repetition of the lancet, this rule will guide us as to its frequency as well as extent; for this should be greater in proportion to the tolerance of the loss of blood in the previous operations.

TREATMENT OF NERVOUS DISEASE.

As there is no class of diseases more embarrassing to the practitioner, than those which are usually connected under the name of nervous, so there are none the treatment of which may reflect more credit on the successful attendant, in proportion to the actual energy of the remedies employed. Whether the latter circumstance is, to the physician himself, an equivalent for the former, we shall not at present inquire; but it may be interesting to consider some of those facts which go to show the part which the mind takes, both in the production and the cure of this class of maladies, and the degree in which mental influence may be supposed to have entered into the most successful modes of treatment hitherto adopted. We are far from suppos-

ing, indeed, that the influence of mental emotions is limited to affections purely nervous. On the contrary, we have reason to think that the balance between fear and hope often decides the favorable or unfavorable termination of fever; and there are instances where a sudden shock to the nervous system, such as that of fright, has been the means of removing even structural disease. Thus a patient perfectly motionless from rheumatism, has been known to recover the entire use of his limbs under the terror of a threatened conflagration; and we are told, by some writer, of a person, who, being threatened with an operation for emphysema, ran away in a fright, and returned at the end of three weeks with the disease entirely removed.

It is, however, in diseases of the class already referred to, and which are independent of any change of structure, that this principle is rendered particularly evident. As three diseases very different in their degree of importance, but in all which the influence of the mind is obvious, we may take convulsions, chorea, and psellismus.

As respects the first disease, we are told of a case in which convulsions became almost epidemic among the female patients of a hospital ward, by means of the example of one of their number; nor were any means found adequate to check its progress, till the threat of actual cautery being applied to the next in whom it occurred, and the exhibition of the requisite means in the centre of the ward, produced a sudden and general cure. Chorea, as is well

known, is most easily communicated by example, and often ceases on the removal of its cause. Stuttering—another modification, though slighter, of spasmodic disease—is remarkably subject to the same law; since it is caught with great facility from example, and is often removed by the aid of a little resolution on the part of the patient. Of the last fact, the celebrated Greek orator is an illustrious example; and we are much inclined to think that an equal motive, and the same perseverance, would remove this disease in the majority of cases. Finally, to descend to affections scarcely termed morbid, we have hiccup, yawning, and immoderate laughter; all which are yielded to as seemingly uncontrollable, but all easily subdued by a strong effort of the will, and often checked at once by any powerful mental exertion.

Of the two principal diseases above mentioned, some cures are lately mentioned in the journals, which we think are in part to be explained by reference to the principle under consideration. One of the methods alluded to, is that adopted by the Surgeon of the Hôtel Dieu in chorea, and consists in immersing the patient—who, for this purpose, is seized by the shoulders and feet—in cold water, and repeating this five or six times in the course of fifteen minutes. After this process, the patient is wiped dry, and is made to take violent exercise for half an hour to an hour. The sensation, as we stated last week, is very disagreeable; but at the end of a few days an evident improvement takes place, and

in the course of from two to four weeks many patients have been wholly cured. Now, without pretending to doubt the truth of this account, or the excellence of the remedy viewed as a tonic, we cannot but think the fear of a daily ducking like that above described, must form a material addition to the means of cure, and must tend considerably to abridge the time which is necessary to complete it.

Whether any similar cause would be likely to promote the efficacy of the following treatment, we leave to our readers to judge. It has, however, been found singularly successful in epilepsy, in the hands of a certain Dr. B., practising at Versailles, near Paris. The following are the particulars of the course pursued, the greater part of which is certainly judicious.

I. *Preparatory Measures.*—1. Venesection ad pedes 3ij. 2. Four days after the bleeding, ant. tart. gr. i. 3. Four days after the emetic, ol. ric. 3i. 4. Four days after the oil, hyd. subm. gr. iv.

II. *Treatment.*—In the morning fasting, aq. laur. cer. gtt. xx., increasing, by one drop every morning, to lx., and then continuing without change. 2. At bedtime, pulv. artemis. fol. 3ij. 3. Moxas applied over the spine from the neck to the sacrum, one every fifteen days. 4. A magnetic bracelet worn constantly on the left arm, and pressed strongly against the side when an attack appears approaching. 5. Friction to the lower extremities with ether.

III. *Regimen.*—1. Flannel next to the skin, and daily sea or river

bathing, by immersing the head first. 2. Exercise in the open air. 3. To avoid all causes of excitement, as violent changes, late hours, theatrical amusements, amatory reading, and all exhausting or debilitating pleasures. 4. To eat only vegetables, and drink only water.

CITY VACCINATION.

THE city authorities having, through the Mayor, requested the opinion of the "Boston Medical Association" what measures, of a permanent character, it is expedient to adopt in order to arrest and prevent the spread of smallpox, the subject was laid before the Association at a special meeting held on Friday last at the Medical College. It was then voted to refer the subject to a committee of five, to consider and report at an adjourned meeting to be held on Thursday, the 23d inst. Drs. Jackson, Randall, Geo. Hayward, Dixwell and Channing, were appointed said Committee.

In order to meet any present emergency, and give effect to any measures which may have been already taken by the City Government, it was voted, on motion of Dr. Jackson—

1. That a Committee for Vaccination shall be appointed, which shall consist of all such members of the Association as shall express their consent to belong to it, and that that consent shall be expressed to the Secretary within one week.

2. That this Committee shall vaccinate gratuitously all persons who shall be designated, by the Mayor or other City Officers, as proper subjects.

3. That this Committee shall not enter on the business of vaccination until a fortnight from next Monday.

4. That the names of the Committee above named be communicated by the Secretary to the Mayor, and that, through him, the City Government be requested to adopt the following plan, viz :—That said Government divide the city into as many sections as there may be members of the Committee; that the said sections be designated by numbers; that the numbers be assigned to the members of the Committee by lot; and that the said members be considered bound in honor to perform the duties assigned in their several sections respectively; but that the individual members be at liberty to exchange their sections, in any cases where they can be mutually accommodated by so doing.

5. That the Secretary communicate a copy of these votes to the Mayor.

GERMINATION UPON MERCURY.

M. J. PINOT read to the Academy of Sciences, of Paris, a memoir, in which he certifies that a grain of *Lathyrus odatus*, after being steeped in water, was placed on mercury covered with a very little water; that the germination proceeded as usual, and the radicle descended into the mercury to the depth of eight or ten lines. Having placed this grain in a state of suspension and equilibrium above the surface of the mercury, the radical descended into the metal in the same manner, though the least resistance seemed as if it would disturb the equilibrium which maintained it.

Bib. Univ.

Hydrophobia.—Three cases of the cure of this formidable disease, by friction with mercurial ointment,

one of them at forty days after the bite, when slight symptoms of the disease, attended with spasms, had become manifested, are described in the *Bib. Univ.*

Lightning Rods.—It is proposed by John Murray, of London, in a recent treatise on Atmospheric Electricity, that every lightning rod should be composed of four wires, each one fifth of an inch in thickness, bound together by rings of copper. This compound rod should extend several feet above the highest part of the building, and at the top each wire should branch out at an angle of 45 deg., and end in a point. The rod should be fastened to the building by wooden clamps. At two feet from the ground, it should incline outwards; and on entering the earth, each wire should branch out again, and terminate in a moist situation. In order to preserve the rods from oxidation, he recommends that, before they enter the ground, they should pass through a cylinder of zinc.

The author supposes that an extensive multiplication of these rods might have an effect of meliorating the climate; and also that, in hop fields, wires of copper, made to project upwards from a sufficient number of the poles, would operate as a preservation against that dampness which, by weakening the vegetative powers of the plant, invites the attacks of the Aphis or fly, which so often proves destructive.—*Rev. Encyc.*

Revised Pharmacopœia.—On our 212th page, we gave an account of the Convention held in April last at Washington, for the purpose of revising the Pharmacopœia of the United States. We learn that the revised edition is almost through the press, and will shortly be offered to the Profession.

Whole number of deaths in Boston the week ending December 3d, 13. Males, 6,—Females, 6. Stillborn, 1.

Of infantile, 2—dropsy, 1—apoplexy, 2—typhous fever, 1—liver complaint, 1—suicide, 1—unknown, 2—consumption, 2.

ADVERTISEMENTS.

WILLIAMS ON DISEASES
OF THE LUNGS.

THIS day received, by CARTER & HENDEE, "A Rational Exposition of the Physical Signs of the Diseases of the Lungs and Pleura, illustrating their Pathology and facilitating their Diagnosis." By CHARLES J. B. WILLIAMS.
Dec. 6.

VACCINE VIRUS.

NATHAN JARVIS, on account of frequent solicitations, will constantly keep for sale FRESH VACCINE VIRUS, taken by a physician from *healthy* subjects. It will be furnished at a reasonable price on demand, either in scabs or quills. Physicians in the country who are in want of Virus, can send their orders by mail, as it can be enclosed in a letter and transmitted without any great expense of postage. June 1.

*Apothecaries' Hall,
No. 188 Washington Street.*

COOPER'S SURGICAL DIC-
TIONARY.

THIS day received by CARTER & HENDEE—A Dictionary of Practical Surgery. Comprehending all the most interesting Improvements, from the earliest times down to the present period. An Account of the Instruments and Remedies employed in Surgery, &c. By SAMUEL COOPER, Surgeon to the King's Bench, &c. From the 6th London edition, revised, corrected and enlarged. With numerous notes and additions, embracing all the principal improvements and greater operations introduced and performed by American Surgeons. By DAVID MERIDITH REESE, M.D., Licentiate in Surgery and Midwifery.
Oct. 19.

HALL ON LOSS OF BLOOD.

THIS day received, by CARTER & HENDEE, "Researches, principally relative to the Morbid and Curative Effects of Loss of Blood." By MARSHALL HALL, M.D. F.R.S.E.
Dec. 6.

NEURALGIC DISEASES.

A TREATISE on Neuralgic Diseases, dependent upon Irritation of the Spinal Marrow, and Ganglia of the Sympathetic Nerve. By THOMAS PRIDGIN TEALE, Member of the Royal College of Surgeons in London, &c. Just received by CARTER & HENDEE. Nov. 2.

GERMAN LEECHES.

RICHARD A. NEWELL, Druggist, Summer Street, respectfully informs the Physicians and Public generally, that he has just received a fresh supply of the above-named *Leeches*, which will be sold at a fair price.

N. B.—Leeches sent to any part of the city, and applied, without extra charge, by day or by night. 6w—Nov. 8.

SURGICAL INSTRUMENTS
AND CHEMICALS.

STUDENTS in want of the above articles, would do well to call, before purchasing, at BREWER & BROTHERS', Nos. 90 and 92 Washington Street—Boston.
Oct. 15. ep3m

ABERCROMBIE ON DISEASES
OF THE STOMACH.

JUST received by CARTER & HENDEE—Pathological and Practical Researches on Diseases of the Stomach, the Intestinal Canal, the Liver, and other Viscera of the Abdomen. By JOHN ABERCROMBIE, M.D., Fellow of the Royal College of Physicians of Edinburgh, &c., and first Physician to his Majesty in Scotland.
Sept. 28.

SURGEON DENTIST'S MA-
NUAL.

JUST received, by CARTER & HENDEE, The Surgeon Dentist's Anatomical and Physiological Manual. By G. WAITE, Member of the Royal College of Surgeons.
Nov. 2.

Published weekly, by JOHN COTTON, at 184, Washington St. corner of Franklin St., to whom all communications must be addressed, *postpaid*.—Price three dollars per annum, if paid in advance, three dollars and a half if not paid within three months, and four dollars if not paid within the year. The postage for this is the same as for other newspapers.